

In re Patent Application of:

CAWOOD ET AL.

Serial No. 10/781,317

Filed: FEBRUARY 18, 2004

REMARKS

The Examiner is thanked for the thorough examination of the present application, and for the courtesy extended during the in person interview. As discussed during the interview, Independent Claims 1, 14, 27 and 66 have been amended to incorporate features of respective dependent claims which are now canceled, and to more clearly define over the cited references. Claims 10, 15, 26, 28 and 39-65 have been canceled for consistency with the amendments to their respective independent claims and/or to reduce the issues for consideration. Claims 1-9, 11-14, 16-25, 27, 29-38 and 66-78 remain pending in the application. The claims are respectfully asserted to be patentable for the reasons provided in detail below.

I. The Amended Independent Claims

Each of the now pending independent Claims 1, 14, 27 and 66 includes an insulating boot for an electrical connector comprising a conductive body having at least one conductor receiving passageway therein to receive a conductor of at least one cable end. The claims includes an insulating tube having an open proximal end received onto said conductive body. The claims further recite a first rupturable seal at the distal end of said insulating tube for initially closing said insulating tube and being penetrable upon insertion of the cable end therethrough, a second rupturable seal at the medial portion of said insulating tube and being penetrable upon insertion of the cable end therethrough. The first and second seals are compliant to accommodate different sized cable ends and form respective seals with adjacent portions of

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the cable end.

**II. Claims 1-9, 11-14, 16-25, 27, 29-38 and 66-78 Are Patentable**

The Examiner rejected the claims over McGrane, Hills et al., and/or Mucci taken alone or in various combinations for the reasons set forth on pages 2-7 of the final Office Action. Applicants contend that Claims 1-9, 11-14, 16-25, 27, 29-38 and 66-78 clearly define over the cited references, and in view of the following remarks, favorable reconsideration of the rejections under 35 U.S.C. §102 and §103 is requested.

As discussed above, each of the independent Claims 1, 14, 27 and 66 includes an insulating tube having an open proximal end received onto said conductive body. The claims further recite a first rupturable seal at the distal end of said insulating tube for initially closing said insulating tube and being penetrable upon insertion of the cable end therethrough, a second rupturable seal at the medial portion of said insulating tube and being penetrable upon insertion of the cable end therethrough. It is these combinations of features which are not fairly taught or suggested in the cited references and which patentably define over the cited references.

The Examiner has relied on the Mucci patent (page 2 of the final Office Action) as allegedly disclosing "an insulating tube (3) having an open proximal end (FIG.2) to be received onto the conductive body."

Firstly, Applicants maintain that the Examiner has misinterpreted the cited reference. Specifically, Applicants note that in Mucci, the connector includes an insulating

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casing 1 (FIG. 1) and a bulkhead 4 holding an inner connection terminal 6 (i.e. conductive body). Indeed, the insulating tube 1 is not received onto the connection terminal 6 at all, let alone having a proximal end received onto the conductive body, as claimed.

As the Examiner is aware, a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. The identical invention must be shown in as complete detail as is contained in the claim.

Accordingly, the Mucci reference cannot anticipate the invention as claimed, and the rejection in view thereof should be withdrawn.

Secondly, the Examiner asserts that the combination of McGrane, Hills et al., and Mucci meets the features of the invention as claimed. Specifically, the Examiner relies upon the connector of McGrane for the teaching of an electrical connector having an conductive body but correctly notes that McGrane does not disclose an insulating boot with at least one rupturable seal. However, the Examiner relied upon the Hills et al. reference as teaching the use of an insulation boot with a rupturable seal.

The Hills et al. patent discloses three embodiments of a gel-filled closure for protecting a telecommunications terminal, yet permit insertion of a test probe to sense a signal on the terminal. The three embodiments disclosed in Hills et al. include:

- (1) a probe penetrable layer including reduced-thickness slits intersecting at a center point to form a series of adjacent pie-slice shaped sections;

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- (2) a probe penetrable layer just having a reduced thickness; and
- (3) a probe penetrable opening wherein underlying encapsulant provides resealing after withdrawal of the probe.

McGrane et al. is directed to an electrical connector for power cables to be essentially permanently and securely connected together for power distribution. In contrast, Hills et al. is directed to a low-voltage telecommunications terminal to permit a probe to be temporarily connected and shortly thereafter removed. Applicants respectfully submit that these two references are directed to quite different technologies and to quite different problems.

Indeed, it is submitted that a hypothetical combination of McGrane and Hills et al. would produce the device of McGrane with an insulating boot having a small seal for temporary entry of a test probe. Moreover, it is unlikely that the low voltage (telecommunication) test probe seal of Hills et al. would ever be combined with the high voltage (power cable) connector of McGrane - because the references are for different applications, different voltages, and to address different problems. Instead, Applicants submit that the Examiner's selective combination of McGrane and Hills et al. is improperly based on hindsight gleaned from Applicants' own specification used as a road map to assemble disjoint pieces of unrelated prior art references.

Furthermore, the Examiner relied upon the Mucci reference as teaching the use of first and second rupturable

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seals. The Examiner the asserts that it would have been obvious to modify the hypothetical combination of McGrane and Hills et al. (as discussed above) to also include a second rupturable seal at the medial portion of the insulating tube and being penetrable upon insertion of the cable end therethrough.

Mucci discloses an underwater connector including an insulating tubular body having opposing ends. Each end includes a respective end seal 2, and there is a respective seal 3 between each end seal and the conductor body 6 in the center of the insulating tubular body. The connector includes a grease, jelly or viscous liquid in the inner chambers thereof.

As already discussed, the Hills et al. patent discloses three embodiments of a gel-filled closure for protecting a telecommunications terminal, yet permit insertion of a test probe to sense a signal on the terminal. As can be clearly seen in FIG. 2 of Hills et al., the terminal 18 extends up into the closed end of the closure 12, and a self-healing encapsulant gel 54 is filled in the closure 12. Importantly, upon withdrawal of the test probe from the closure 12, the self-healing encapsulant gel 54 reforms a seal around the terminal 18. Accordingly, not only would a second rupturable seal, as taught by Mucci, interfere with the terminal 18 in the medial portion of the Hills et al. closure, but such a second seal would be unnecessary therein as the closure 12 includes a more reliable self-healing sealing arrangement as specifically desired by the teachings of the Hills et al. reference.

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Accordingly, it is clear that the Examiner is again impermissibly using the teachings of Applicants' own patent application as a roadmap to modify the prior art.

As the Examiner is aware, to establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the reference. Second, there must be a reasonable expectation of success. Finally, the prior art reference must teach or suggest all the claim features. The initial burden is on the Examiner to provide some suggestion of the desirability of doing what the Applicants have done. To support the conclusion that the claimed invention is directed to obvious subject matter, either the reference must expressly or impliedly suggest the claimed invention or the Examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the reference. Both the suggestion to make the claimed combination and the reasonable expectation of success must be founded in the prior art and not in Applicants' disclosure.

There is simply no teaching or suggestion in the cited references to provide the combination of features as claimed. Accordingly, for at least the reasons given above, Applicants maintain that the cited references do not disclose or fairly suggest the invention as set forth in Claims 1, 14, 27 and 66. Furthermore, no proper modification of the teachings of these references could result in the invention as

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claimed. Thus, the rejection under 35 U.S.C. §103(a) should be withdrawn.

It is submitted that the independent claims are patentable over the prior art. In view of the patentability of the independent claims, it is submitted that their dependent claims, which recite yet further distinguishing features are also patentable over the cited references for at least the reasons set forth above. Accordingly, these dependent claims require no further discussion herein.

### III. Conclusions

In view of the amendments to the claims and the arguments presented herein, it is submitted that all of the claims are patentable. Accordingly, a Notice of Allowance is respectfully requested in due course. If any minor informalities need to be addressed, the Examiner is encouraged to contact the undersigned attorney at the telephone number listed below.

Respectfully submitted,

  
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